

PUBLIC NOTICE

PERMIT APPLICATION: NRS 07.077

APPLICANT: Graham Corporation
Tim Graham, President
1707 Merchants Drive
Knoxville, Tenn. 37912
865-219-7421

LOCATION: Willow Fork and unnamed tributary to Willow Fork, Halls Crossroads proposed retail facility, southwest of Quarry Road, Knox County 36.1000 °N, -83.9099 °W

WATERSHED DESCRIPTION: Willow Fork is located in the Lower Clinch watershed (HUC 06010207) and is assessed as not supporting its fish and aquatic life and recreation designated uses classification. The stream is listed as impaired by alterations is stream-side cover, sediment/siltation, and *E. coli*, with the source of impairment listed as discharges from a municipal separate storm sewer system. The designated uses for both Willow Fork and its tributary are fish and aquatic life, irrigation, livestock watering and wildlife, and recreation. On the project site, which is primarily open pasture, Willow Fork flows in a well defined and entrenched channel across the site. The stream has variable amount of riparian canopy, from trees on the upper and lower end and sparse vegetation in the middle sections due to cattle activity. The dominant substrate is a silt/clay with gravel and cobble interspersed with the occasional small boulder. The tributary is a small headwater stream with intermittent flow. The wetland is currently pasture, and an herbaceous emergent wetland dominated by creeping jenny (*L. nummularia*), rough cocklebur (*X. strumarium*), jewelweed (*I. capensis*) and soft rush (*Juncus* sp.). Willow Fork is Tier 1 waters. The surrounding watershed is rural with increasing residential and retail development.

Color photos of these streams and wetlands are available on the Internet version of this notice at <http://www.state.tn.us/environment/wpc/ppo/arap>.

PROJECT DESCRIPTION: The applicant proposes to impact and modify approximately 2,319 feet of Willow Fork, 176 feet of the unnamed tributary and fill 0.60 acres of wetlands for the purpose of retail development. The relocated channel will be moved approximately 250 feet south east and be 2530 linear feet of channel and 150 feet of box culverts.

The relocated stream channel was designed to mimic a reference section of Willow Fork. The constructed stream channel will have added riffle-pool sequences along with a planned riparian zone, some of which is the wetland mitigation areas. Within the non-wetland areas, two rows of tree seedlings (a combination to be selected from pin oak, red maple, river birch, sycamore, green ash) and two rows of shrubs (a combination to be selected from strawberry bush, button bush, silky dogwood, Virginia willow) will be planted with a general spacing of 20-feet on-center.

Flow will be maintained in the existing channel until the relocated channel is completed. This will require the relocated channel to be constructed in stages, upstream, downstream and then the middle portion.

The applicant proposes to mitigate for the 0.60-acre of wetland fill by the creation of 1.81 acres of flood-plain wetlands along the relocation channel. This applicant contends that this 3:1 ratio is justified due to the high likelihood of success (historic wetlands along the floodway) and the cattle-impacted nature of the existing wetlands. The mitigation wetlands will be supplied with additional hydrology from bank cuts in the relocated channel and designed to generally not hold more than 2 inches of standing water. Within the wetland mitigation area, trees will be planted at

a rate of 300 per acre and shrubs at a rate of 200 per acre. These will be bare-root stock. No individual species will represent more than 25% of the total plantings.

Within the relocated stream, there are two road crossings. Within the wetland creation areas, there are two utility corridors that will have trench plugs. These alterations are excluded from the mitigation calculations.

The relocation and mitigation areas will be monitored up to five years. Stream monitoring will include documenting a 75% vegetation survival rate, measuring stream flow twice a year and photo documentation. Wetland monitoring will include soil sampling, documenting a 75% vegetation survival rate, and two hydrology monitoring wells. All the information will be included in an annual monitoring report.

In accordance with the Tennessee Antidegradation Statement (Rule 1200-4-3-.06), the division has determined that the proposed activity may result in degradation to water quality due to the presence of bedrock in the stream relocation path.

USGS TOPOGRAPHIC QUADRANGLE: Fountain City 146 SW

PERMIT COORDINATOR: Juliana W. Kyzar

No decision has been made whether to issue or deny this permit. The purpose of this notice is to inform interested parties of this permit application and to ask for comments and information necessary to determine possible impacts to water quality. Persons wishing to comment on the proposal are invited to submit written comments to the department. Written comments must be received within **thirty days of the date that this notice is posted**. Comments will become part of the record and will be considered in the final decision. The applicant's name and permit number should be referenced.

Interested persons may also request in writing that the department hold a public hearing on this application. The request must be filed within the comment period, indicate the interest of the person requesting it, the reasons that the hearing is warranted, and the water quality issues being raised. When there is sufficient public interest in water quality issues, the department will hold a public hearing.

The permit application, supporting documentation including detailed plans and maps, and related comments are available at the department's address for review and/or copying. The department's address is:

Tennessee Department of Environment & Conservation
Division of Water Pollution Control, Natural Resources Section
7th Floor L & C Annex
401 Church Street
Nashville, TN 37243

In deciding whether to issue or deny a permit, the department will consider all comments on record and the requirements of applicable federal and state laws.



Photo 1: Existing wetland facing Southwest 8/7/06. Photo Provided by S&ME



Photo 2: Existing wetland facing northeast 8/7/06. Photo Provided by S&ME



Photo 3: Section of Willow Fork 8/7/06. Photo Provided by S&ME



Photo 4: Unnamed tributary to Willow Fork 8/7/06. Photo Provided by S&ME



Photo 5: Willow Fork 11/16/06. Photo Provided by S&ME



Photo 6: Willow Fork 11/16/06. Photo Provided by S&ME

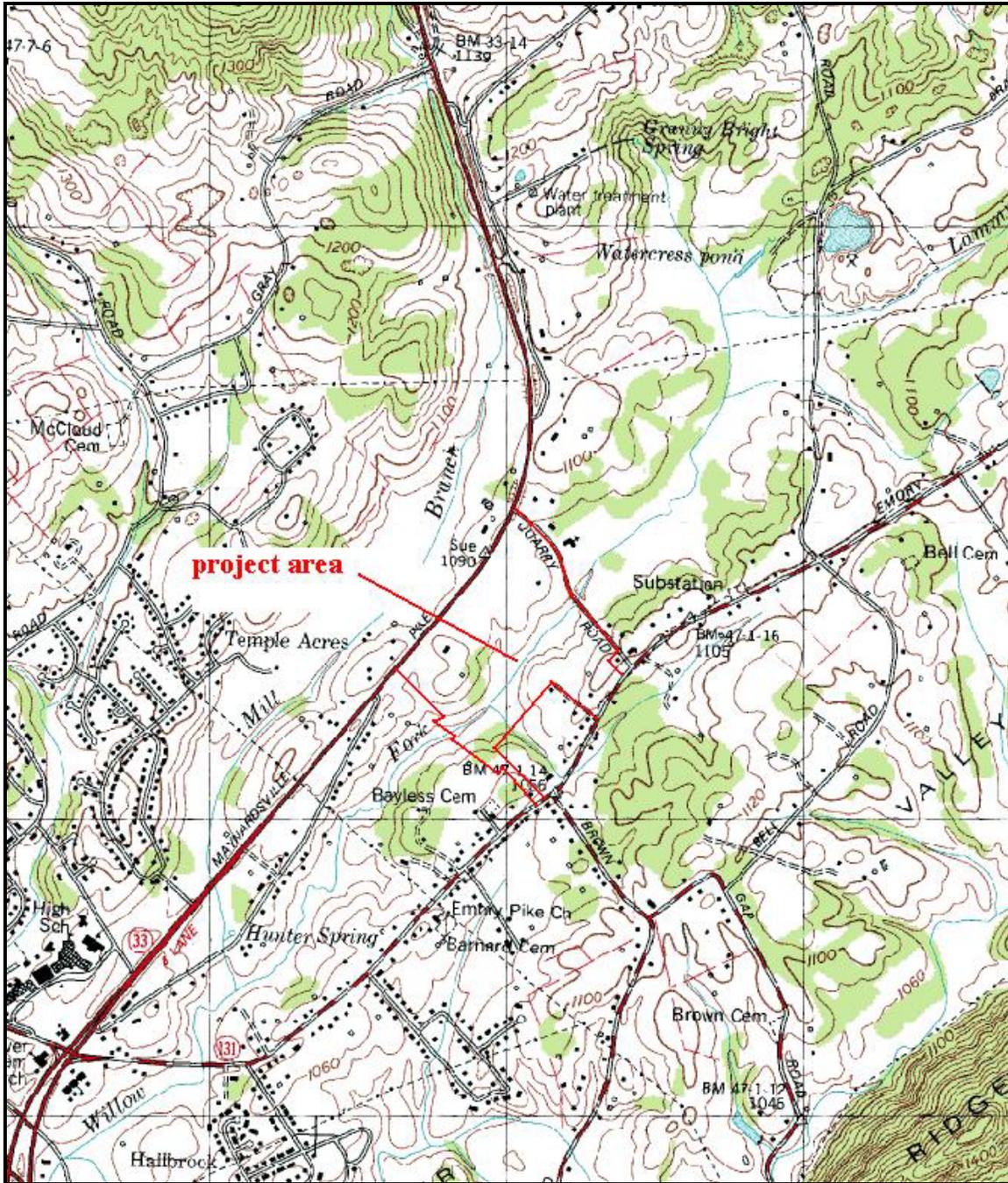


Figure 1: USGS topographic map showing the project area

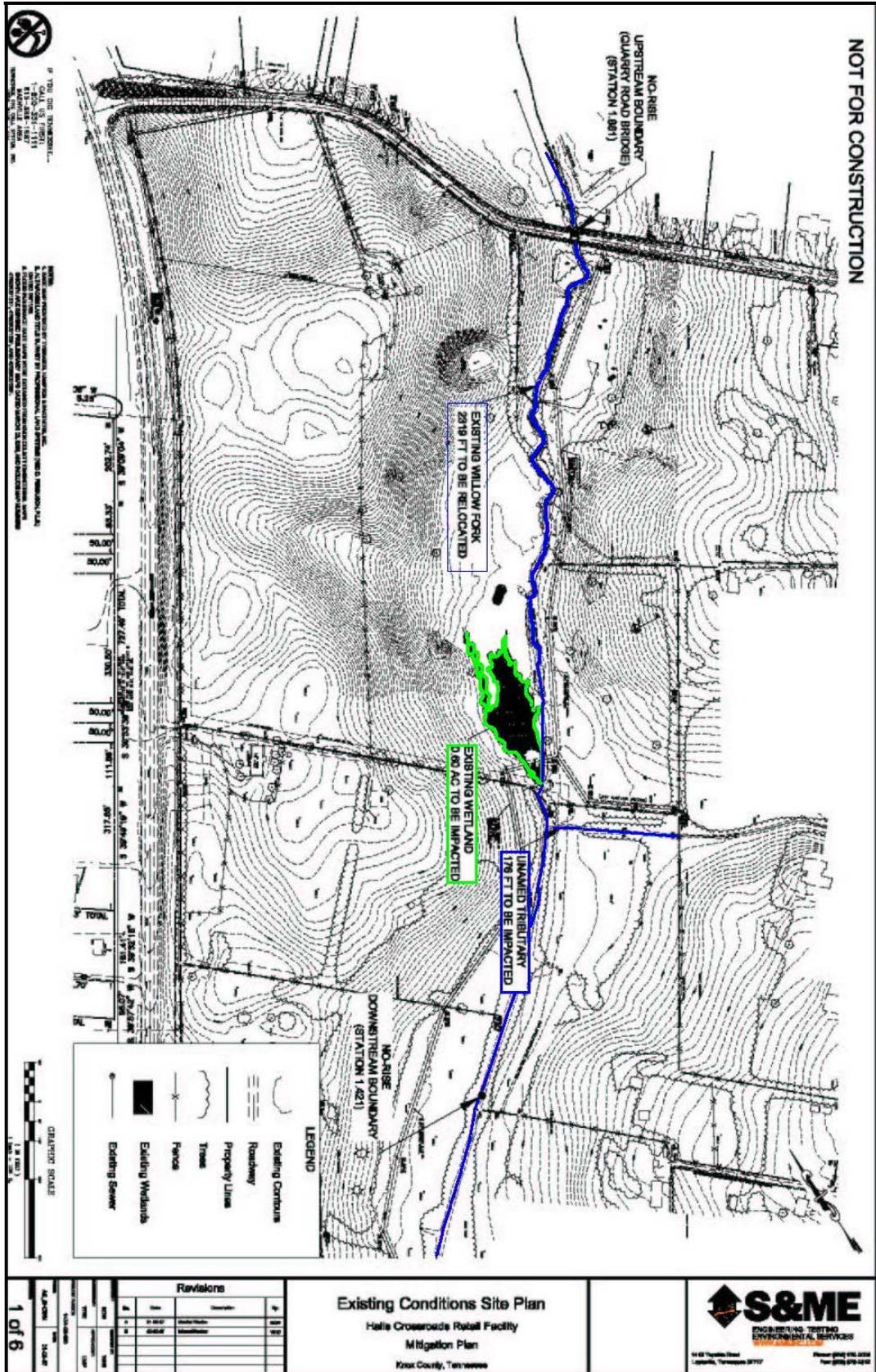


Figure 2: Existing conditions, not to scale.

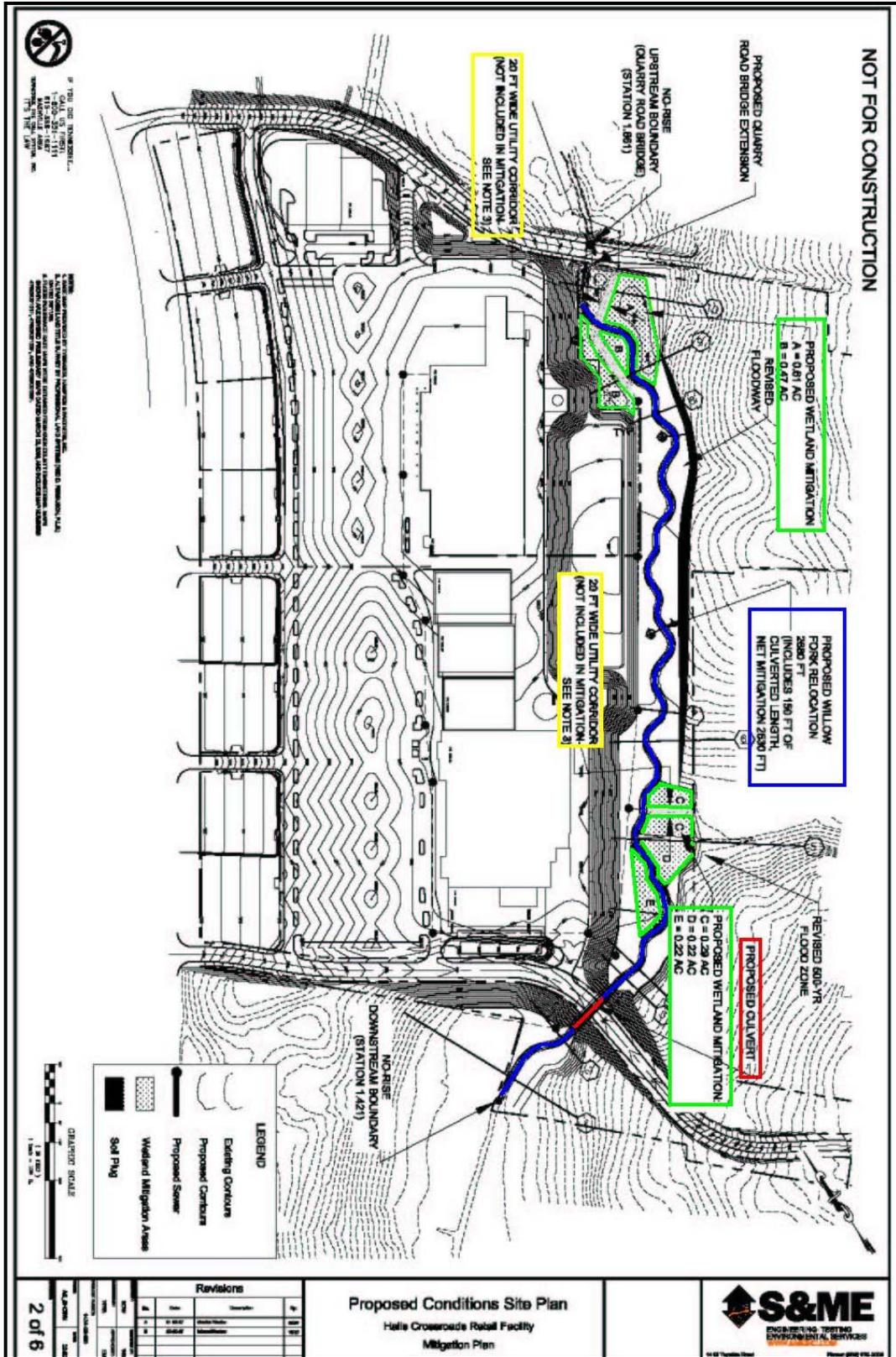


Figure 3: Proposed conditions, not to scale

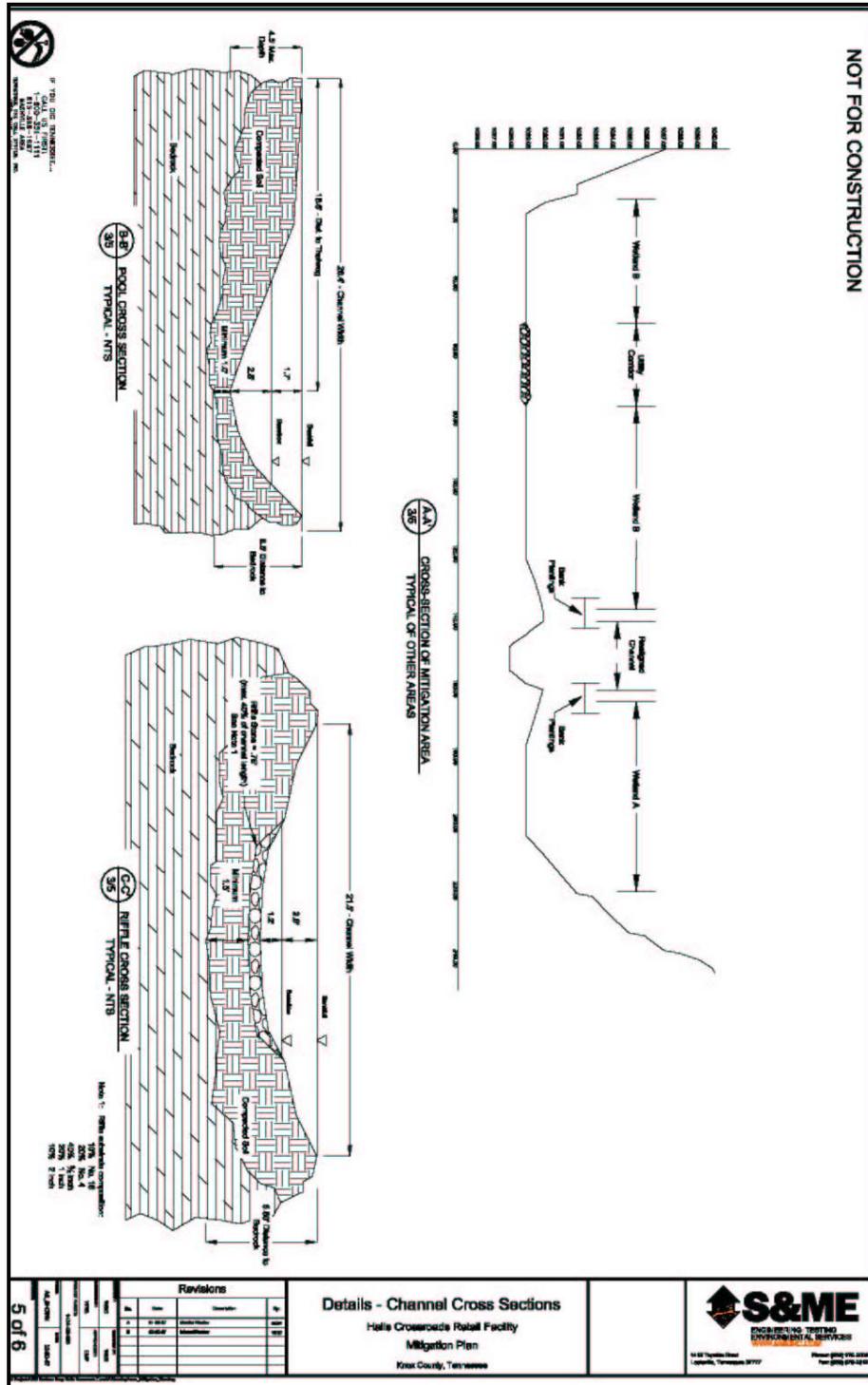
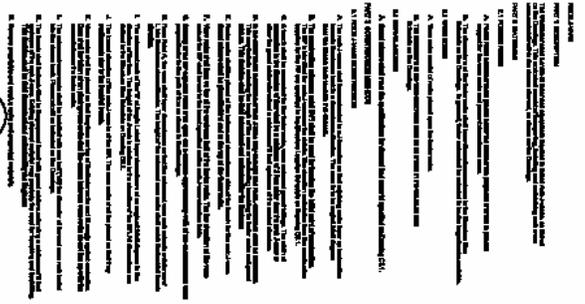


Figure 4: Proposed cross sections of channel and wetland mitigation areas

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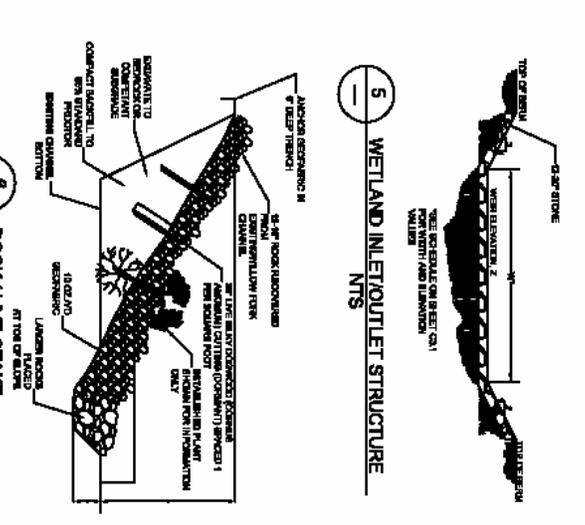
1 **HOOK VANE**
NTS



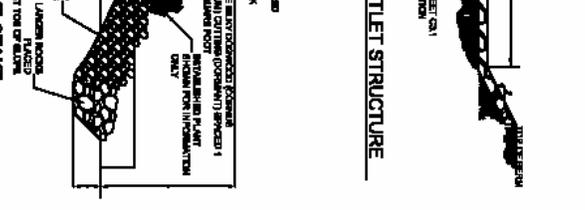
2 **CROSS VANE**
NTS



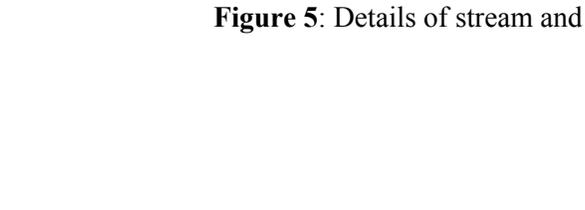
3 **UTILITY CORRIDOR/SOIL PLUG**
NTS



4 **BANK STABILIZATION**
NTS



5 **WETLAND INLETOULET STRUCTURE**
NTS



6 **ROCK LIVE STAKE**
NTS



Figure 5: Details of stream and wetland structures.

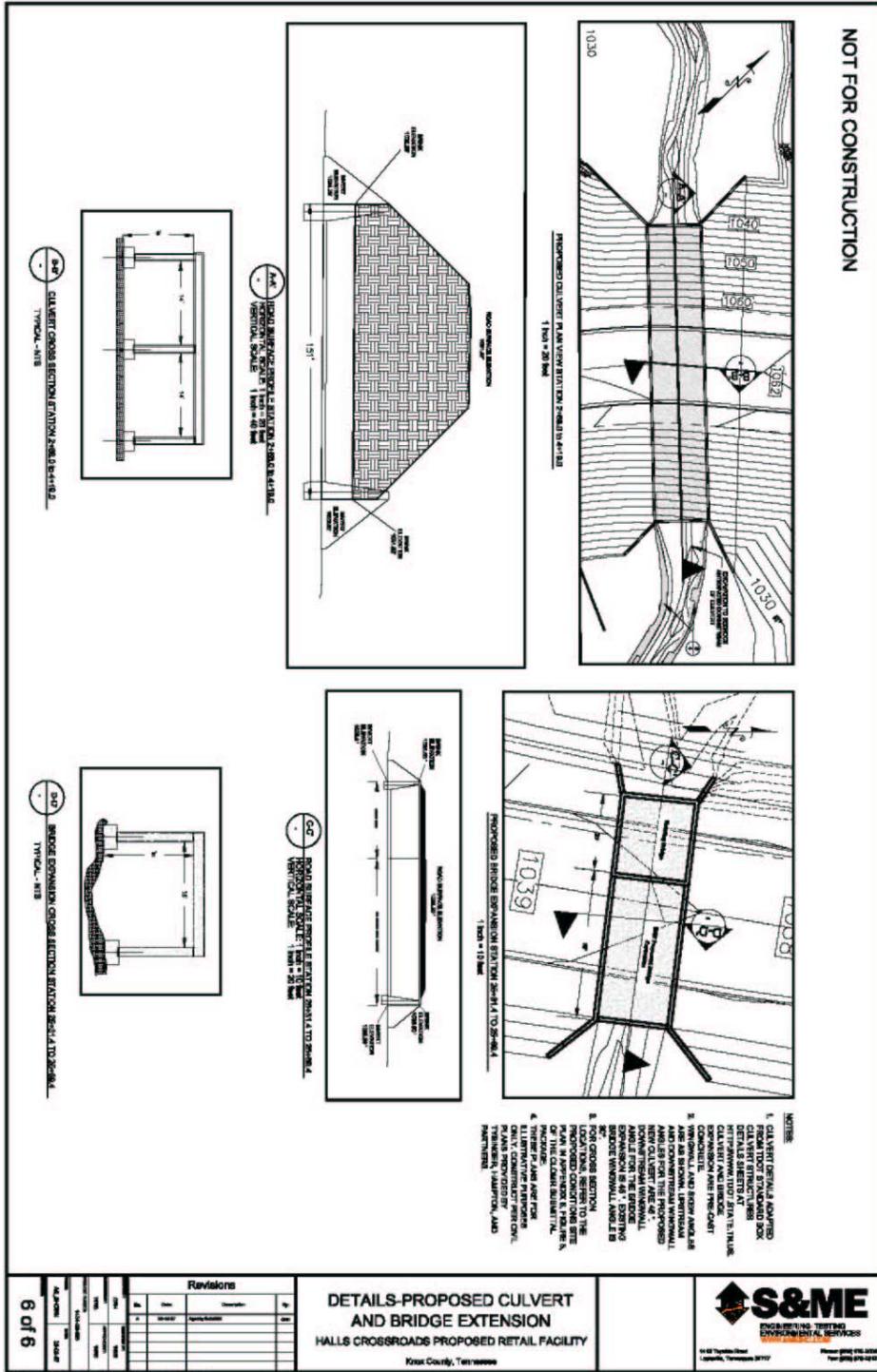


Figure 6: Details of road crossings